

Activities since the 2005 Comprehensive Wildlife Conservation Strategy

Wyoming's first Comprehensive Wildlife Conservation Strategy (CWCS) was adopted by the Wyoming Game and Fish Commission in July 2005 and was approved by the U.S. Fish and Wildlife Service (USFWS) in September 2005. Developing a CWCS is required in order to receive funding through the federal State Wildlife Grants (SWG) program enacted by Congress in 2001. The purpose of the CWCS is to establish a coordinated strategy to maintain the health and diversity of wildlife within Wyoming, including those species with low and declining populations. Not only is the CWCS intended to guide the Wyoming Game and Fish Department's (WGFD) activities for this purpose, but it also serves as a guide for the combined efforts of government agencies, conservation organizations, academia, tribes, and individuals in conserving Wyoming's Species of Greatest Conservation Need (SGCN). The CWCS is the first plan of its kind for Wyoming, and also part of an unprecedented national framework of similar plans established in all U.S. states and territories.

Implementation Plan for Wyoming's Comprehensive Wildlife Conservation Strategy

The WGFD Habitat Technical Advisory Group (HTAG) developed an *Implementation Plan for Wyoming's Comprehensive Wildlife Conservation Strategy* in February 2008. The implementation plan was intended to help prioritize WGFD SGCN conservation efforts until the revision of the CWCS in 2010. The plan placed the highest priority on collecting biological information (i.e., distribution, abundance, life history, habitat requirements, genetics, method development, research, etc.) for SGCN for which there is insufficient data. Secondary emphasis was placed on habitat projects including conservation easements and property acquisitions.

The implementation plan included additional criteria for evaluating SWG and other sensitive species grant proposals. Emphasis was placed on projects that:

1. Implemented conservation strategies for SGCN that are federally listed under the Endangered Species Act;
2. Addressed the needs of multiple SGCN;
3. Incorporated human, financial, or technical resources of partners outside the WGFD;
4. Involved SGCN for which Wyoming represented a large percentage of their continental range; and
5. Displayed the ability to be cost effective.

The importance of GIS work and public outreach to the future success of the CWCS was noted. Lastly, the implementation plan contained a timeline and task list for the next revision of the CWCS.

New Sensitive Species Funding Sources

The WGFD has received more than \$3,050,000 from the SWG program for fiscal years 2005–2009.

The budget for the 2009–2010 biennium provided general fund appropriations to the WGFD for the first time for all aspects of its nongame/sensitive species program. The Wyoming Legislature awarded \$1.2 million to the department for maintenance and operations, including existing personnel and administrative support, and \$609,000 in direct general fund appropriations for each of the two years for specific SGCN project work. This appropriation was later reduced by \$40,000 to \$569,000 as part of the Governor's directive to all agencies to reduce general fund budgets due to revenue shortfalls. This funding, in conjunction with \$1.3 million from the Governor's Endangered Species Account, has aided the WGFD with inventory work to fill data gaps for SGCN and has resulted in status

reclassifications for some species in the revised CWCS. These dollars are also important for matching SWG program funds, which require a 50% contribution from the state for most projects.

In December 2007, Region 6 of the USFWS entered into a five-year memorandum of agreement with the State of Wyoming and the WGFD to facilitate coordination on sensitive species projects, including projects on current or potentially listed threatened or endangered species. Projects initiated through this collaboration include researching the potential impacts of wind energy development on wildlife, restoring native fish populations, and surveying prairie dogs and goshawks, among other. The WGFD has received a total of \$548,000 through this agreement and is expecting additional allocations in fiscal years 2011–2013.

Lastly, in 2005, the Wyoming Legislature created the Wyoming Wildlife and Natural Resource Trust (WWNRT) to “enhance and conserve wildlife habitat and natural resource values throughout the state.” The WWNRT is funded by donations, legislative appropriations, and the interest earned on a permanent account. It functions as an independent state agency governed by a board of directors composed of nine citizens appointed by the Governor. Since 2006, 160 projects have been funded by WWNRT throughout the state, which has resulted in the allocation of more than \$14 million from the trust itself and over \$105 million when matching dollars from sponsoring agencies and organizations are included. The WGFD and the Wyoming Game and Fish Commission have been able to use WWNRT grants to augment SWG funding to support various SGCN monitoring and recovery efforts.

Strategic Habitat Plan

In early 2009, the WGFD revised its Strategic Habitat Plan (SHP) in response to intensified habitat threats across Wyoming, including accelerated energy development, insect epidemics, proliferating invasive species, drought stress, and the apparent role of climate change in wildlife management. The recent

revision of the SHP incorporates SGCN into the planning process and includes SGCN considerations in identifying “crucial” and “enhancement” areas. Moreover, the mitigation policy developed by the Wyoming Game and Fish Commission for species and habitats that are being unavoidably impacted by growth, development, and land use changes includes SGCN. The WGFD Habitat Technical Advisory Group’s role in developing both the SHP and CWCS allowed for coordination between the two plans.

SGCN Projects

More detailed information about CWCS-related projects conducted since 2005 can be found in this plan within individual species accounts and in the “Conservation Initiatives” topic heading of the specific sections on aquatic basins and, to a lesser extent, terrestrial habitat types. Annual Reports are completed for all bird and mammal CWCS projects and can be found at <http://gf.state.wy.us/wildlife/nongame/AnnualCompletionReport>. The following are examples of some, but not all, CWCS-related projects since 2005.

Birds and Mammals

Baseline and trend data was collected on the American white pelican and other colonial nesting water birds, bald eagle, Columbian sharp-tailed grouse, common loon, greater sage-grouse, sandhill crane, long-billed curlew, peregrine falcon, trumpeter swan, American bittern, mountain plover, upland sandpiper, and goshawk. SWG program funding also helped to develop survey and inventory methods for harlequin ducks. Sage-grouse habitat-use studies, including investigations into brood rearing locations, summering and wintering habitats, and seasonal movements, have been completed. Research has also been conducted on the risk of nest abandonment by raptors due to human disturbances. The effects of energy development, including from wind power, on birds is being studied. Sage-grouse, golden eagles, and ferruginous hawks are receiving special attention for this research.

SWG grants have also supported baseline data collection and surveys on black- and white-tailed prairie dog, several species of bats, Canada lynx, pygmy rabbit, swift fox, and wolverine. Annual surveys were completed on black-footed ferrets to determine their status and distribution at reintroduction sites, to map ferret habitat, and to make additional reintroductions. A wolverine study in the Yellowstone ecosystem researched wolverine densities and population viability, habitats important to wolverine persistence, travel corridors between isolated mountain ranges, effects of human recreation, reproductive and survival rates, and mortality factors. Similarly, a study on the effects of winter recreation trails on small- and mid-sized mammals, including lynx and wolverine, was conducted. Enhanced manpower and materials have been provided to reduce grizzly bear-human conflicts in the Yellowstone Ecosystem. Remote cameras were used to document females with cubs as a potential technique to estimate grizzly bear population. A study investigating the effects of beetle kill on forest SGCN has also been established.

Fish

Considerable survey work was completed on Wyoming native fish populations. Notable projects were conducted on the main stem and tributaries of the Green, lower Bighorn, and Powder rivers, as well as eastern Wyoming prairie streams. This work greatly enhanced knowledge about the size and distribution of a significant proportion of Wyoming native fishes and contributed to the reclassification of the SGCN status of 15 species in the revised CWCS. Completion of this survey work will help to target future native fish conservation and restoration efforts.

Projects to remove nonnative fishes were completed to conserve endemic populations of Colorado River and Yellowstone cutthroat trout. SWG program funds were also used to describe the spawning movements and habitat of Snake River cutthroat trout in the Salt River watershed.

The effects of habitat fragmentation on native roundtail chubs, bluehead suckers, and flannelmouth suckers were researched in the Little Sandy River and on Colorado River cutthroat trout in the north fork of Little Snake river watershed. Research into the movement and migration of sauger and shovelnose sturgeon was completed.

Reptiles and Amphibians

The WGFD hired a Herpetological Coordinator in May 2008. Amphibians and reptiles including turtles (six taxa), amphibians (five taxa), snakes (six taxa), and lizards (two taxa) were surveyed in the Powder River basin. The study helped to refine survey methods for these species groups that can be applied statewide. Data on road mortality for snakes and turtles was collected as part of this research. Abundance and distribution information on midget faded rattlesnakes, ornate tree lizards, Great Basin gopher snakes, and Northern Plateau lizards was collected in Sweetwater County. This area was prioritized due to proposed natural resource development. SWG funds were used to conduct boreal toad surveys in all portions of southern Wyoming and throughout the Green River watershed in south-central Wyoming. The department's Herpetological Coordinator was also active in recovery efforts for the endangered Wyoming toad.

Mollusks and Crustaceans

A project has been established to look into the distribution and ecology of Wyoming freshwater mussels and freshwater gastropods of western Wyoming. Surveys of crayfish were conducted to increase knowledge about their distributions in all Wyoming drainages.

Data Systems

SWG funding helped to employ a WGFD GIS Analyst, who worked to compile SGCN datasets from before and after the writing of the 2005 CWCS. This information was imported into a geodatabase that allows for visualization and both spatial and non-spatial queries. The GIS Analyst played a leading role in creating SGCN priority area maps for the 2010 State Wildlife

Action Plan (the new name for the CWCS), and in responding to numerous requests from WGFD employees for SGCN maps and map analyses. An additional GIS Analyst was hired to focus on sage-grouse work.

Public Outreach

The WGFD frequently featured articles about the CWCS, CWCS projects, leading conservation issues, and SGCN, using its *Wyoming Wildlife* magazine (~33,000 subscribers), the bi-monthly *Wyoming Wildlife News* newsletter (~30,000 printed), and the weekly email news releases (~15,000 subscribers). Featured SGCN have included harlequin duck, trumpeter swan, yellow-billed cuckoo, black-footed ferret, pygmy rabbit, midget faded rattlesnake, and Colorado River cutthroat trout. In 2006, the *Species of the Season Challenge* program was established to enhance awareness about SGCN and to engage the public in collecting information on their distribution and relative abundance (see SWAP Public Involvement).

Preparation and Completion of 2010 CWCS Revision

Preparations for the revision of the CWCS began with the development of a revision timeline and task list for the *Implementation Plan for Wyoming's Comprehensive Wildlife Conservation Strategy*. Among the tasks recommended and completed was the hiring of a CWCS Coordinator to assist with the 2010 revision of the plan. This coordinator was hired by the WGFD in July 2008.

The first task in the revision process was for the Habitat Technical Advisory Group (HTAG) to review the CWCS and CWCS implementation plan for needed improvements. Next, WGFD employees and representatives from other agencies who participated in the development of the 2005 CWCS were interviewed regarding their perceptions of the plan and suggested changes. Key stakeholders for the future implementation of the CWCS, including

individuals from agriculture and energy industry trade associations, were also contacted. CWCSs from surrounding states and those from states noted for being particularly innovative or effective were reviewed for ideas and to facilitate future cross-border coordination.

An outline and timeline for the revised plan was completed by HTAG and approved by the WGFD Administration in January 2009. Goals for the 2010 CWCS were presented and adopted by the Wyoming Game and Fish Commission on April 24, 2009. These goals included:

1. Creating a more structured approach for meeting the conservation needs of SGCN at the state, habitat, and species level;
2. Including a section that addressed Wyoming's leading wildlife conservation issues;¹
3. Increasing the habitat focus of the plan by including a section that divided SGCN habitats into 11 terrestrial habitat types and 6 aquatic basins. Non-SGCN wildlife species of high ecological, economic, or social importance were identified within each terrestrial habitat type and aquatic basin;
4. Providing greater prioritization of SGCN for conservation actions;
5. Establishing an Interagency Advisory Team to improve interagency coordination on the revision and future implementation of the CWCS (see Wyoming's 2010 SWAP Conservation Approach); and
6. Developing prioritization criteria for future SWAP funding which incorporated the above goals.

At this time, the name of the Comprehensive Wildlife Conservation Strategy was changed to State Wildlife Action Plan (SWAP) to reflect the most common name by which these plans were being referred.

¹ For the 2010 CWCS, Wyoming's leading wildlife conservation challenges were identified as rural subdivision and development, energy development, invasive species, climate change, and disruption of natural disturbance regimes.

In order to receive public input on the plan, a quarterly *SWAP Newsletter* was initiated in May 2009. Revision topics and developments were featured within the *SWAP Newsletter* as they occurred along with contact information for the WGFD SWAP Coordinator for receiving questions and comments (see SWAP Public Involvement).

Information collection for the revised SWAP began in May 2009. Input was received from leading wildlife and natural resource conservation experts by personal interview, focus groups, and written submissions. Experts were identified by HTAG and the SWAP Inter-agency Advisory Team (see Wyoming's 2010 SWAP Conservation Approach).

From this stage, the 2010 SWAP revision proceeded as follows:

1. The first drafts of SWAP sections were finished in May 2010 and were made available for review and comment by individuals who had contributed information. This review period lasted until the end of July.
2. The WGFD HTAG groups reviewed SWAP conservation and monitoring recommendations in early August 2010.
3. A draft of the completed SWAP was delivered to the WGFD Administration for approval on August 17 and submitted to the Wyoming Game and Fish Commission at their September 8, 2010 meeting.
4. A presentation on the revised SWAP was provided to Wyoming Game and Fish Commission members at the September 8 commission meeting.
5. The revised SWAP, with the recommendations of Wyoming Game and Fish Commissioners included, was posted on the WGFD website for public comment on October 1, 2010. The public comment period ended October 31, 2010. During this time public meetings were held in four locations around the state—Green River, Lander, Casper, and Laramie—to provide the public with an overview of the revised

SWAP and to receive feedback on the plan (see SWAP Public Participation).

6. The SWAP, with revisions based on public comments, was presented to and approved by the Wyoming Game and Fish Commission during their January 28, 2011 meeting.
7. The revised SWAP was submitted to the USFWS for approval in February 4, 2011. Approval was received on July 1, 2011.

The next revision of the SWAP is currently scheduled for 2015.